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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,925	09/30/2003	Thomas A. Genise	00-TRN-403 CIP #1	5184

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Kevin M. Hinman
26201 Northwestern Hwy.
P.O. Box 766
Southfield, MI 48037

EXAMINER	
BURCH, MELODY M	
ART UNIT	**PAPER NUMBER**
3683	

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/674,925	GENISE, THOMAS A.	
	Examiner	Art Unit	
	Melody M. Burch	3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 February 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☒ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 February 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "1" has been used to designate a plurality of different portions of a vehicle as shown in figure 1. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance. Different views should be labeled differently. Applicant may choose to label the different drawings figures 1A-1D.

2. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Claim Objections

3. Claim 22 is objected to because of the following informalities: In line 11 from the bottom of claim 22 "then" should be changed to --than--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 11, 12-14, 22-24, 26, and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- in line 3 of claim 11, in line 2 from the bottom of claim 12, lines 2 and 3 of claim 14 the phrase "ramped portion" is indefinite. It is unclear to the Examiner as to which ramped portion Applicant intends to refer to Examiner has interpreted the claim as reading -- ramped portions-- a similar issue exists and in line 4 of claim 11 and in line 4 of claim 14 and in lines 13-14 and line 8 from the bottom of claim 22 with the phrase "wedging member" and in line 2 of claim 16 with the phrase "flyweight". Finally, in line 4 of claim 24 "said engine idle speed" lacks proper antecedent basis.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3-8, 11, 14-20, 22, 24, 25, 27, 28 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 2441928 to Banker.

Re: claim 1, 3-6, 8, 15, 16, 17, 18, 19, 25, 27, and 28. Banker shows in figure 1 a vehicular centrifugally operated master friction clutch for coupling an output member 10 of an engine to a transmission input shaft 11, the clutch including a driving member assembly fixedly rotatable with the engine output member and a driven member assembly rotatable with the transmission input shaft, the clutch comprising: a plurality of flyweights 23 carried by the driving member assembly for unitary rotation therewith and radial movement relative thereto about a pivot axis parallel to the input shaft, return members 29 urging the flyweights radially inwardly, wedging members 26 fixed to the flyweights for radial movement therewith, the wedging members received between opposed surfaces of a relatively axially fixed reaction plate 17 (the right surface of element 17) and an axially movable plate 22 (the left surface of element 22), a first of the surfaces (the surface of the movable plate 22) defining a plurality of ramped portions 30 extending radially outwardly and axially toward the other of the surfaces whereby as the wedging members move radially outwardly along the ramped portions the axially movable plate (or top portions of the axially movable plate) will be urged in an axial direction away from the reaction plate, an axially movable pressure plate or right element 15 rotatable with the driving member assembly for applying a clamping force to frictionally engage a friction member 14 rotatbale with the input shaft with a friction member 15 rotatable with the driving member assembly and a resilient member 20

axially interposed between the axially movable plate 22 and the pressure plate 15 for limiting the magnitude of the clamping force.

Re: claims 7 and 20. Banker shows in figure 1 the limitation wherein the relatively axially fixed plate is associated with a wear adjustment mechanism 57,60 via intervening elements.

Re: claim 11. Banker shows in figure 1 the limitation wherein the first of the surfaces defining the ramped portions defines a further portion located radially outwardly or on top of the ramped portions and not extending axially towards the other surface whereby movement of the wedging member radially outwardly along the further portion will not further urge the axially movable plate (particularly, the top part of the axially movable plate) axially away from the reaction plate.

Re: claim 22. See the rejection of claim 1 and Banker show the a first of the surfaces defining a first portion, the first portion being ramped and extending radially outwardly and axially toward the other of the surfaces whereby as the wedging members move radially outwardly along the first portion the axially movable plate will be urged in an axial direction away from the reaction plate, the first of the surfaces also defining a second portion located radially outwardly of the first portion and extending axially toward the other surface (from a radial outer point to a radial inner point) by a lesser degree (in a sense that the second portion does not extend as close to the other surface as the first portion, as broadly claimed) than the first portion whereby movement of the wedging members radially outwardly along the second portion will have a lesser tendency to increase or decrease urging of the axially movable plate in the axial

direction than will movement of the wedging member radially along the first portion, particularly movement of the wedging members radially outwardly along the second portion will have a lesser tendency to increase urging of the axially movable plate in the axial direction particularly away from the other surface than will movement of the wedging members radially along the first portion, as broadly claimed, since movement of the wedging members radially outwardly along the second portion will tend to cause the top portion of the axially movable plate to move toward the other surface.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 9 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banker in view of US Patent 3747731 to Smirl.

Banker describes the invention susbstantially as set forth above including the use of a spring as a resilient member.

Smirl teaches in the figure on the front of the patent the use of a centrifugal clutch having a Belleville washer 86. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the resilient member of Banker to have included a Belleville washer, as taught by Smirl, in order to provide an alternate means for creating a biasing effect. Examiner also notes that since Belleville washers and springs were art-recognized equivalents at the time of the invention, one of

ordinary skill would have found it obvious to substitute a Belleville washer for the spring of Banker.

10. Claims 10 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banker in view of US Patent 2534133 to Kirkpatrick.

Banker describes the invention substantially as set forth above including the limitation wherein the clutch has a degree of engagement dependent upon the rotational speed of the driving member and the clutch being disengaged when the driving member is rotating at the engine idle speed or the below the predetermined speed set forth by Banker, but does not include the specific engagement features set forth in the claim recitations.

Kirkpatrick teaches in col. 3 lines 55-64 a clutch being incipiently engaged when the driving member assembly is rotating at an incipient engagement engine speed greater than an engine idle speed, the clutch achieving a maximum engagement when the driving member assembly is rotating at at least a lockup engine speed, the lock up engine speed greater than the incipient engagement engine speed as taught in col. 3 line 65-col. 4 line 2, the clutch remaining at the maximum engagement when the driving member assembly is rotating at a disengagement engine speed less than the lockup engine speed before reaching the low predetermined limit taught in col. 4 lines 3-6.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the clutch of Banker to have included clutch engagement parameters, as taught by Kirkpatrick, in order to provide a means of

gradually increasing to and decreasing from maximum engagement as the engine speed accelerates and decelerates, respectively, to improve rider feel.

11. Claims 1-8, 11, 12, 14-20, 22, 23, and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 2907433 to Maurice et al. in view of US Patent 3696901 to Henry.

Re: claims 1-6, 8, 11, 12, 14-19, 22, 23 and 25-28. US Patent 2907433 to Maurice et al. show in figures 1, 3, and 4 a vehicular centrifugally operated master friction clutch for coupling an output member 10 of an engine to a transmission input shaft H, the clutch having a driving member assembly 12,22 fixedly rotatable with the engine output member and a driven member assembly as shown rotatable with the transmission input shaft, the clutch comprising: a plurality of flyweights 19 carried by the driving member assembly for unitary rotation therewith particularly when element 28 is operated as disclosed in col. 3 lines 22-25 and radial movement relative thereto, wedging members as disclosed in col. 2 line 36 fixed to the flyweights for radial movement therewith, the wedging members received between opposed surfaces (the left side surface of element 20 and the right surface of element 18) of a relatively axially fixed reaction plate 20 and an axially movable plate 18,16, one of the surfaces (the right surface of element 18) defining a ramped portion extending radially outwardly and axially toward the other of the surfaces whereby as the wedging members move radially outwardly along the ramped portion the axially movable plate will be urged in an axial direction away from the reaction plate; an axially movable pressure plate 13 rotatable with the driving member assembly for applying a clamping force to frictionally engage a

friction member 14 rotatable with the input shaft with a friction member (or surface on the driving member that mates with the friction member rotatable with the input shaft) rotatable with the driving member, and a resilient member 15 axially interposed between the axially movable plate and the pressure plate for limiting the magnitude of the clamping force, but does not specifically describe the limitation of return members being used to urge the flyweights radially inwardly.

Henry teaches in the figures 2 and 4 the use of a centrifugal clutch employing return members 48 to urge flyweights 14 radially inwardly as taught in col. 4 lines 62-65. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the flyweights of Maurice et al. with return members, as taught by Henry, in order to provide a means of adjusting the desired minimum rotation speed at which centrifugal force will cause outward radial movement of the flyweights.

Re: claims 7 and 20. Maurice et al. shows the relatively axially fixed plate being associated with a wear adjustment mechanism 24.

12. Claims 9 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 2907433 to Maurice et al. in view of US Patent 3696901 to Henry as applied to claims above, and further in view of US Patent 3747731 to Smirl. Smirl teaches in the figure on the front of the patent the use of a centrifugal clutch having a Belleville washer 86. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the resilient member of Maurice et al. to have included a Belleville washer, as taught by Smirl, in order to provide an alternate means for creating a biasing effect.

13. Claims 10, 13, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 2907433 to Maurice et al. in view of US Patent 3696901 to Henry as applied to claims above, and further in view of Kirkpatrick.

Maurice et al., as modified, describe the invention substantially as set forth above including the limitation wherein the clutch has a degree of engagement dependent upon the rotational speed of the driving member and the clutch being disengaged when the driving member is rotating at the engine idle speed or the below the predetermined speed set forth by Maurice et al., but do not include the specific engagement features set forth in the claim recitations.

Kirkpatrick teaches in col. 3 lines 55-64 a clutch being incipiently engaged when the driving member assembly is rotating at an incipient engagement engine speed greater than an engine idle speed, the clutch achieving a maximum engagement when the driving member assembly is rotating at at least a lockup engine speed, the lock up engine speed greater than the incipient engagement engine speed as taught in col. 3 line 65-col. 4 line 2, the clutch remaining at the maximum engagement when the driving member assembly is rotating at a disengagement engine speed less than the lockup engine speed before reaching the low predetermined limit taught in col. 4 lines 3-6.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the clutch of Maurice et al., as modified, to have included clutch engagement parameters, as taught by Kirkpatrick, in order to provide a means of gradually increasing to and decreasing from maximum engagement as the engine speed accelerates and decelerates, respectively, to improve rider feel.

Response to Arguments

14. Applicant's arguments filed 2/21/05 have been fully considered but they are not persuasive. With regards to the drawing objections, Applicant is advised to review section 608.02 of the MPEP particularly the subsection discussing the numbering of views. The bracket that Applicant has used in amended figure 1 should be used for exploded views.

With regards to the amendment including the limitation of a pivot axis, Examiner notes that Applicant argues that the claims have been amended to specify the orientation of a pivot axis of the flyweights, however, the claim language merely recites radial movement of a plurality of flyweights relative to the driving member assembly about a pivot axis parallel to the input shaft. Examiner notes that there are an infinite number of pivot axes parallel to the input shaft in Maurice et al. and the flyweights of Maurice et al. move radially relative to the driving member assembly about them, particularly those axes located radially inward of the flyweights. Examiner maintains the rejections using the Maurice et al. reference as Applicant's claim recitation is broader than the argument. The claim does not recite that the pivot axis is that of the flyweights.

In response to applicant's argument that there is no motivation to combine Maurice et al. and Henry and no description of physical modification, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the

test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Henry teach the use of a clutch having resilient means for resisting the centrifugal force of flyweights. Maurice et al. include centrifugally actuated flyweights, but do not include resilient means. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the flyweights of Maurice et al. to have been operatively associated with resilient means, as taught by Henry, in order to provide a means of biasing the flyweights in a disengaged state as taught by Henry.

15. Applicant's arguments, see pg. 15, filed 2/21/05, with respect to the rejection(s)of claim(s) 10, 13, and 24 under 35 USC 103 in view of Braun have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kirkpatrick as set forth above.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mmb
mmb
May 13, 2005
Melody M. Bouch
5/13/05